8. A biosafe system of claim **1**, further comprising a resistive heating element contactingly disposed on said amplification chamber.

9. A biosafe system of claim **1**, wherein said resistive heating element is a transparent ITO heating element.

10. A method for assaying a biosample for a target nucleic acid, the method comprising:

a) Collecting a sample with a swab and threadedly sealing said swab in a sample compartment in a sample carrier; said sample carrier further with tubular nose with central orifice, said orifice with inner seal; then,

b) Sealingly assembling said sample carrier into a sample receiving receptacle of a microfluidic cartridge, said sample receiving receptacle with piercing means, thereby piercing said inner seal and fluidically joining said sample compartment with a first fluidic channel of said microfluidic cartridge, thereby forming a microfluidics cartridge assembly; and thereafter,

c) Engaging said microfluidics cartridge assembly in a control platform instrument; and,

d) Sealedly introducing and withdrawing a lysis reagent to and from said sample compartment via said first fluidic channel, thereby forming a sample lysate; and aspirating said lysate into an isolation chamber on said microfluidics cartridge assembly; and therein,

e) Sealedly extracting a target nucleic acid from said sample lysate nucleic acid onto a solid phase matrix, thereby forming a solid phase retentate; and,

f) Sealedly eluting the target nucleic acid from said solid phase matrix, thereby forming an eluate; and further,

g) Sealedly amplifying said target nucleic acid with amplification reagents; before,

h) Sealedly detecting amplification products by optical detection means;

i) And further having controlled said steps of the assay by activating electrical and hydraulic control interfaces of said control instrument platform; before finally,

j) Disposing said microfluidics cartridge assembly.

11. The method of claim **10** wherein said amplification step comprises a LAMP protocol.

12. The method of claim **10**, wherein said optical detection means comprises a step for hybridizing a probe with fluorophore.

13. The method of claim **10**, wherein said optical detection means comprises a step for turbidometry.

14. The method of claim **10** wherein the nucleic acid target is a nucleic acid of a respiratory pathogen.

15. The method of claim **14** further comprising a step for reverse transcriptase mediated synthesis of cDNA from RNA of a respiratory pathogen.

16. The method of claim **10** wherein the nucleic acid target is a host genomic DNA.

17. The method of claim **10** further comprising a control reaction run side-by-side with the bioassay.

18. The method of claim **10** wherein said amplification reagents are provided on-cartridge as dehydrated reagents.

19. The biosafe system of claim **1**, wherein the microfluidics cartridge assembly and control platform instrument combination is portable.

20. The steps, features, integers, compositions and/or compounds disclosed herein or indicated in the specification of this application individually or collectively, and any and all combinations of two or more of said steps or features.

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